decreases with time; these were judged to be dying cells. 80 cells were analyzed in this experiment. B, The reversibility of the induced calcium current is demonstrated. In this representative experiment (n>6), the glucose-stimulated calcium current could be washed out with Krebs Ringer Phosphate (KRP) solution. A second calcium current could then be stimulated by readministration of 17 mM glucose. Washout of the glucose followed by tolbutamide stimulation, a SUR-linked potassium channel blocker, also stimulated a calcium current, as expected. Arrows indicate times of administration. A total of 123 cells were analyzed in this experiment. 7-13 % of the cells gave rise to calcium currents in response to the stimulus (shown in red) whereas 45-65 % of the cells showed no response to any of the stimuli (shown in blue). The remaining 35% of cells exhibited varying amplitudes and kinetics in response to challenge, indicating a complex population.

In the claims:

For the convenience of the Examiner, all claims being examined, whether or not amended, are presented below.

55. (Reiterated) A method for preparing a substantially pure non-adherent population of progenitor cells comprising:

obtaining a cell suspension from an animal tissue selected from pancreatic tissue, pancreatic ductal tissue, liver tissue, and dermis, wherein said cell suspension comprises at least one progenitor cell;

treating the cell suspension with a growth factor preparation; and

allowing proliferation of said at least one progenitor cell such that a substantially pure non-adherent progenitor cell population is obtained,

thereby obtaining a substantially pure non-adherent progenitor cell population that is at least about 50% pure.

57. (Amended) A method for preparing a substantially pure non-adherent population of progenitor cells comprising:

obtaining a cell suspension from an animal tissue selected from pancreatic tissue, pancreatic ductal tissue, liver tissue, and dermis, wherein said cell suspension comprises at least one progenitor cell;

treating the cell suspension with a growth factor preparation; and

allowing proliferation of said at least one progenitor cell such that a substantially pure non-adherent progenitor cell population is obtained,

thereby obtaining a substantially pure non-adherent progenitor cell population that is at least about 60% pure.

58. (Amended) The method of claim 57, wherein said non-adherent population of progenitor cells is at least about 70% pure.

59. (Amended) The method of claim 57, wherein said non-adherent population of progenitor cells is at least about 80% pure.

60. (Amended) The method of claim 57, wherein said non-adherent population of progenitor cells is at least about 90% pure.

61. (Amended) The method of claim 57, wherein said animal tissue is obtained from a mammalian organ.

---

63. (Reiterated) The method of claim 55, wherein said cell suspension is obtained by mechanical disruption of said animal tissue.

64. (Reiterated) The method of claim 55, wherein said cell suspension is obtained by enzymatic disruption of said animal tissue.

65. (Reiterated) The method of claim 55, wherein said growth factor preparation comprises at least one of epidermal growth factor, transforming growth factor, hepatocyte growth factor, fibroblast growth factor, leukemia inhibitory factor, insulin-like growth factor, and platelet-derived growth factor.

66. (Amended) The method of claim 57, wherein said substantially pure non-adherent progenitor cells are floating cells.

68. (Twice Amended) The method of claim 57, wherein said substantially pure non-adherent progenitor cells form a homotypic cell sphere.

69. (Reiterated) A method for preparing a substantially pure non-adherent population of progenitor cells comprising:

providing an animal tissue selected from pancreatic tissue, pancreatic ductal tissue, liver tissue, and dermis;

disrupting said animal tissue so as to obtain a cell suspension comprising at least one progenitor cell; and

allowing proliferation of said at least one progenitor cell such that a substantially pure non-adherent progenitor cell population is obtained,

thereby obtaining a substantially pure non-adherent progenitor cell population at least about one hundred-fold enriched from said animal cell suspension.

71. (Reiterated) The method of claim 55 or 69, wherein said non-adherent progenitor cell population expresses Nestin.

72. (Reiterated) The method of claim 55 or 69, wherein said non-adherent progenitor cell population expresses at least one of c-kit and Sca.

73. (Reiterated) The method of claim 55 or 69, wherein said non-adherent progenitor cell population under proper conditions can give rise to cells that express a marker selected from Pdx-1, glucagon, and insulin.

74. (Reiterated) A composition comprising the substantially pure nonadherent progenitor cell population obtained by the method of claim 55 or 69.

75. (Reiterated) The composition of claim 74, wherein the substantially pure nonadherent progenitor cell population expresses a marker selected from Nestin, c-kit, and Sca.

76. (Reiterated) The composition of claim 74, wherein the substantially pure nonadherent progenitor cell population under proper conditions can give rise to cells that express a marker selected from Pdx-1, glucagon, and insulin.

77. (Reiterated) The method of claim 55 or 69, wherein said substantially pure non-adherent population of progenitor cells is at least about one thousand-fold enriched from said animal cell suspension.

78. (Reiterated) The method of claim 55, wherein said substantially pure non-adherent population of progenitor cells is at least about one hundred-fold enriched from said animal cell suspension.

The claims presented above incorporate changes as indicated by the marked-up versions below.

57. (Amended) ~~The~~ A method ~~of claim 55, wherein said~~ for preparing a substantially pure non-adherent population of progenitor cells comprising:

obtaining a cell suspension from an animal tissue selected from pancreatic tissue, pancreatic ductal tissue, liver tissue, and dermis, wherein said cell suspension comprises at least one progenitor cell;

treating the cell suspension with a growth factor preparation; and

allowing proliferation of said at least one progenitor cell such that a substantially pure non-adherent progenitor cell population is obtained,

thereby obtaining a substantially pure non-adherent ~~population of~~ progenitor ~~cells~~ cell population that is at least about 60% pure.

58. (Amended) The method of claim ~~55~~ 57, wherein said non-adherent population of progenitor cells is at least about 70% pure.